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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/761,287	01/16/2001	Colin C. Davis	10003590-1	5570

7590 10/21/2008
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

DEMILLE, DANTON D

ART UNIT	PAPER NUMBER
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3771

MAIL DATE	DELIVERY MODE
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10/21/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/761,287

Applicant(s)

DAVIS, COLIN C.

Examiner

Danton DeMille

Art Unit

3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

Claims 7-11, 15, 16 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Byron et al. '427.

Byron teaches, for example, in figure 4 a supply of liquid filling chambers 223', 223". "Heaters 227' and 227" are preferably provided for each flow passage 223' and 223", respectively" paragraph 71, lines 3-5. The liquid "in flow passages 223' and 223" are volatilized by the heaters 227' and 227", respectively, and expand out of the open ends 225' and 225" of the flow passages, respectively", paragraph 72, lines 11-14. To any extent applicant's flow passage 32 is a chamber so are the flow passages 223' and 223" of Byron. Byron also teaches the aerosol particles are to be less than 2 microns in paragraph 74, lines 5-10, which would be less than the claimed 100 femtoliters. It would appear Byron anticipates the claimed invention.

Claim Rejections - 35 USC § 103

Claims 7-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wirch et al.

Wirch teaches, for example, a method of creating droplets by providing an inhaler, figure 1, having a supply of liquid 5, filling a plurality of ducts or chambers 11 with some of the liquid and instantaneously heating 14 the liquid in the chambers to evaporate in a vapor bubble propelling from each chamber. Wirch teaches column 3, line 11, of a droplet size ranging between 1-10 ng for inhalers. While applicant appears to be claiming 0.1 ng droplet size the difference appears to be a matter of degree. Wirch teaches a variety of different droplet sizes. Such is well within the realm of the artisan of ordinary skill depending on practical considerations of intended use. It would have been obvious to one of ordinary skill in the art to

modify Wirch to decrease the size of the droplets to at least 0.1 ng in order to accommodate different patient requirements or different medication requirements.

Regarding claims 10 and 12, there appears to be no unobviousness to how many orifices for each chamber. Such does not appear to be critical since applicant's invention can have 1 or 2.

Regarding claim 17, Wirch teaches an inhaler in figure 1. Inherently there would have to be a mouthpiece for the patient in order to inhale the medicament. It would have been obvious to one of ordinary skill in the art to further modify Wirch to include a mouthpiece for the patient to use during the process of inhaling the medicament.

Regarding claim 18, there appears to be no unobviousness to specific relative dimensions of the chamber. Such is well within the realm of the artisan of ordinary skill.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danton DeMille whose telephone number is (571) 272-4974.

The examiner can normally be reached on M-F from 8:30 to 6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu, can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

22 October 2008

/Danton DeMille/
Danton DeMille
Primary Examiner
Art Unit 3771